AUTODESK

The benefits of using the Plant 3D toolset in AutoCAD
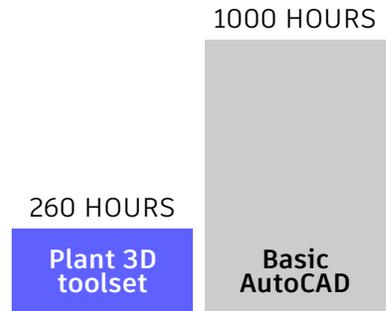## Productivity study highlights

The Plant 3D toolset brings dramatically increased productivity and significant time savings to common AutoCAD® process plant design tasks.

Study summary

Autodesk commissioned a study that compared basic AutoCAD to the Plant 3D toolset when performing six tasks commonly used by process plant designers.

Results showed that the Plant 3D toolset provided over **74% overall productivity gain*** compared with basic AutoCAD, when these tasks were performed by an experienced AutoCAD user.

74% overall productivity gain*

1000 HOURS

260 HOURS

Plant 3D toolset

Basic AutoCAD

How the Plant 3D toolset saves time

1 **Creation and modification of a P&ID** (including reporting)
*Average productivity gain across all users **is around 42%***
Across the range of data-driven graphical tasks, the real 'meat' of the P&ID activity, the Plant 3D toolset enabled an average improvement of over 50%. The average time to complete tasks was 24% faster with the Plant 3D toolset than the average time it took to complete just the graphical tasks with AutoCAD. Generating line lists was over 100% quicker and less prone to errors.

2 **Creation and modification of spec-driven 3D piping, equipment, and structures**
*Productivity gain **up to 5%***
The Plant 3D toolset allows users to create entire 3D plant models in the time it takes to produce a single piping orthographic drawing in basic AutoCAD. How? The Plant 3D toolset designer easily places dimensionally correct components using the various existing catalogs. In contrast, the basic AutoCAD designer must have all the component dimensions available; when drafting new views, they can't use any of the original view graphics and need to start 'from scratch.'

3 **Engineering data management**
*Productivity gain **up to 76%***
Simple, point-and-click data export with the Plant 3D toolset Data Manager replaces manual data extraction in basic AutoCAD for a massive productivity gain of over 76%. The toolset eliminates the need for project planners to check the data as diligently for user errors from manual data entry throughout the process.

4 **Creation of piping isometric drawings**
*Productivity gain **up to 93%***
The Plant 3D toolset allows users to produce piping isometrics almost instantly from the model with no editing required– whether the isometric is new or a revision based on revisions to the model. This represents a significant productivity gain.

5 **Creation of 2D piping orthographic drawings**
*Productivity gain **up to 77%***
Because the Plant 3D toolset generates all the documentation (piping isometrics, piping orthographic drawings, reports, and MTOs) based on the plant model, errors are considerably reduced and all documents are more consistent.

6 **Piping specifications and catalog management**
*Productivity gain **up to 91%***
The Plant 3D toolset allows users to create and manage piping specifications. Designers define and use these piping specs to select dimensionally correct components to place in the model. The components include all reporting information, helping create greater consistency across the documentation. As complexity increases with additional drawings of the same area of the plant, productivity gains increase.

AutoCAD includes access to all AutoCAD vertical industry functionality as specialized toolsets. Take your work with you with the AutoCAD mobile app and the AutoCAD web app.